Special software programme for the handicapped

2213. SHRI P.G. NARAYANAN: Will the Minister of COMMUNICATIONS AND INFORMATION TECHNOLOGY be pleased to state:

(a) whether any special software programe has been developed for deaf, dumb and visually disabled persons in the country;

(b) if so,.the salient features thereof;

(c) the centres where such programmes are being run for the disabled persons; and

(d) the additional centres proposed to be opened during the next three years in different parts of the country to give equal participation to disabled people in all areas of life?

THE MINISTER OF STATE IN THE MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY (DR. SANJAY PASWAN): (a) Yes, Sir. Following systems with special software have been developed by Webel Mediatronics Limited, Kolkata under sponsorship of Ministry of Communications and Information Technology.

(i) Braille Transcription System in Indian Languages for Visually Impaired Persons.

(ii) IT for Braille Literacy in Indian Languages, Resource & Training Centres and their Networking.

(iii) Portable communication device with programmable audio messages for Speech disabled persons.

(iv) Educational & Communication software for people affected with Cerebral Palsy.

(b) Salient Features of systems developed for Disabled Persons are given in Statement-I. (*See* below)

(c) The list of Institutes/Schools where the systems have been installed and working satisfactorily are given in Statement-II. (*See* below).

(d) These systems mentioned in (a) above are in various stages of implementation at the centres listed in Statement-II. (*See* below) In most

of the centres, installation has been completed and they are working. At the rest of the centres, implementation will be completed well before the next five years.

Statement-I

Salient Features of systems developed for Disabled Persons

(i) **Braille Transcription System for Visually Impaired persons:** The system having features such as Comprehensive system for Braille reading, writing & printing, System supports printing through Interpoint Brailler as well, Ergonomically suitable for blind users, Audio-supported Six key Braille entry, Braille knowledge not required for operating system. System also supports 12 Indian Languages from Text to Braille and Braille to Text Transcription *viz.* Hindi, Marathi, Gujarati, Punjabi, Bengali, Assamese, Oriya, Tamil, Telugu, Kannada, Malayalam and Nepali. A specially designed Braille Keyboard and an Automatic Braille Embosser have also been developed.

(ii) **IT for Braille Literacy in Indian Languages—Resource & Training Centres and Networking:** The Software and Hardware developed under this project are being deployed to blind institutes across the country. Among the blind institutes in India, 5 institutes have been selected as Resource Centres while 5 institutes have also been chosen under each Resource Centre for Training Centres making altogether a total of 25 Training Centres. All these 30 centres are being equipped with the technologies related to Braille Transcription System. The 30 centres are being networked through Internet to share Braille resources among them & also with outside world. Resource Centres will generate and preserve Braille documents. They will be responsible archivers of Braille resources. Training centres will use these modern technologies to educate and train the students in an effective way. Training centres will also help to build up Braille resources. Visually challenged people will be able to use extensively the Hardware & Software installed in these centres.

(iii) **Portable communication device with programmable audio messages for Speech disabled persons:** Voice Output Device is developed for communication by Spastic & other disabled individuals, which includes Deaf and Dumb. In the device a recorded message can be played through built-in-speaker by pressing switch. Recording can be done through built-in high gain, unidirectional microphone with minimum background noise. Salient features are Light weight, Low cost, Portable Device, Rechargeable Ni-cd Battery operated, Charging can be done by an external charger through plug-in socket, Low Battery consumption. Micro-controller based design with latest voice codec IC ship, Highly reliable customized switches for ease of operation, Available in single switch configuration and four switch configuration. This can also be used by seriously ill patients unable to move or/and speak.

(iv) **Educational & Communication software for people affected with Cerebral Palsy:** An Educational and Communication Software have been developed. This is a computer assisted communication tools for people affected with cerebral palsy to express themselves as well as understand others with ease. The system enabled them to prepare image icon based study material, which is automatically get converted to textual form and *vice versa*. With the appropriate IT applications, this is not only help communication between the affected and the normal person around him but also any where through internet. It also has been develop an effective large vocabulary of pictures of Indian background for a large gamut of concepts to express. For the textual part, local languages such as English, Mizo, Hindi and Bengali have been used. Other languages can also be incorporated. The content and the educational materials has been developed in consultation with The Indian Institute of Cerebral Palsy, Kolkata who is designated centre for development for the eastern regions and the Society for Rehabilitation of spastic Children, Aizwal.

Statement-II

The list of Institutes/Schools where the systems have been installed and working satisfactorily

IT for the Visually Impaired

Project	Name of the School
Information Technology for Braille Literacy in Indian Languages : Development and Networking	1. Calcutta Blind School, Behala, Kolkata, West Bengal 2. Vivekananda Mission Ashram Residential School for the Blind (Govt. Sponsored) chaitanyapur (Haldia), West Bengal 3. Bhim Bhoi School for the Blind, Bhubaneshwar, Orissa 4. Jorhat Blind Institution, Jorhat, Assam 5. The Ideal Blind School, Imphal, Manipur 6. Institute for the Visually Handicapped (Boys), Tripura. 7. National Institute Visually Handicapped, Dehradun 8. Blind Relief Association, New Delhi. 9. Government Institute for Blind, Ludhiana, Punjab. 10. Govt. Inter-college school for the Blind, Lucknow, UP 11. Training Centre for Adult Blind (Govt. of Haryana), Haryana 12. Bihar Blind Peoples' Care Society, Patna, Bihar 13. The National Association for the Blind, Mumbai 14. Secondary School for the Blind, Blind People's Organisation, Ahmedabad, Gujarat 15. L.K.C. Jagadamba Andh Vidyalaya, Shriganga-nagar, Rajasthan 16. Smt. M.K. Mehta School for the visually Handicapped, Palanpur, Gujarat 17. The Belgaum district Association for the Blind, Belgaum, Karnataka. 18. Govt. High School for the Blind Girls, Hyderabad, A.P. 19. Sri. Ramkrishna Mission Vidhyalaya College of Education, Coimbatore, Tami Nadu

Project	Name of the School
	20. St. Louis Institute for the Deaf and the Blind, Chennai, Tamil Nadu
	21. Govt. School for the Blind, Trivandrum, Kerala
	22. Shree Ramana Maharishi Academy for the Blind, Bangalore, Karnataka
	23. Visakha Model School for the Blind, Visakhapattanam.
	24. Govt. Deaf & Dumb Blind Institute, Bhopal, M.P.
	25. St. Michael's School for the Blind, Ranchi, Jharkand
	26. Jeevan Jyoti School for the Blind, Varanasi, U.P.
	27. M.P. Welfare Association for the Blind, Indore
	28. Govt. H.S. School for Blind, Jabalpur, M.P.
	29. The Blind Relief Association, Nagpur, Maharashtra
IT enabled Braille Education for the Bilind Schools of West Bengal and Augmentation of Infrastructure	1. Voice of World, Kolkata
	2. The Lighthouse for the Blind, Kolkata
	3. Louis Braille Memorial School for the Sightless, Uttarpara
	4. Ramkrishna Mission Blind Boys Academy, Narendrapur
	5. Naihati Apex Blind School, Naihati
	6. Ramkrishna Vivekananda Mission, Barrackpore
	7. Bardhawan Blind boys Academy, Bardhawan,
	8. Vivekananda Mission Ashram, Haldia
	9. Nabadwip APC Blind School, Nabadwip, Nadia,
	10. Manbhum District Pratibandhi Shisksayotan, Purulia
	11. Vidyasagar Blind Vocational Training Institute, Dariachock, Midnapur,
	12. Ananda Bhaban Deaf & Blind, Uluberia, Howrah
	13. NELC School for the Blind, Cooch Bihar
	14. Jalpaiguri Welfare Organisation for the Blind, Jalpaiguri
	15. Jhunka Pratibandhi Vidyalaya, Murshidabad
	16. Subodh Sen Smriti Drishtihin Vidyalaya, Alipurdwar, Jalpaiguri

Project	Name of the School
	17. Moyna Ramkrishna Mission, Medinapore (E) 18. Chatra Physically Handicapped, Murshidabad 19. Vivekananda Lokshikha Niketan, Midnapore 20. Ikshupatra Social Welfare Organisation, Midnapore 21. Karimpore Social Welfare Society, Karimpur, Nadia 22. Sri Aurobindo Institute for Sightless, Suri, Birbhum 23. Subodh Kumar Mishra Memorial, Malda 24. Durbachati Sundarban Special School for the Handicapped 24 Pgs.(S) 25. Disahri, Rishra 26. State Central Library, Kolkata 27. Uttarpara Joykrishna Library, Uttarpara, Hooghly 28. Purul Sarada Mission for Blind, Panskura, Medinapore (E)
Application of Computerised BrailleSystem for the blind schools of Mizoram and Sikkiim	1. Samaritans' Association for the Blind, Durtlang, Mizoram 2. Kolasib Blind School, Kolasib, Mizoram 3. Jawahar Lal Nehru Blind School, Namchi, Sikkim
Application of Computerised Braille System in Blind Schools of Assam	1. National Association for the Blind, Assam State Branch, Guwahati 2. Assam blind Association, Jorhat 3. Jyoti Niketan, Mankhuli, Assam
IT for Cerebral Palsy affected People	
IT based Education and Communication for people affected with Cerebral Palsy	1. Society for Rehabilitation of Spastic Children, Aizwal 2. Indian Institute of Cerebral Palsy, Kolkata